

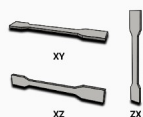
DESCRIPTION

AzureFilm PLA Silk (polylactide) shares PLA's good mechanical properties and excellent print quality, finished with a glossy, silk-like surface. Easy to process —no warping and no irritating smell.

KEY BENEFITS

- Silk gloss finish
- Vibrant sheen
- Easy to print
- High stiffness
- No warping
- No odor

MECHANICAL PROPERTIES



TEST METHOD

Each property below lists its single measured value alongside the test condition used. Measured on 3D-printed specimens.

PROPERTY	TEST CONDITION	VALUE
Tensile modulus	1 mm/min	3.3 GPa
Tensile strength	50 mm/min	59.0 MPa
Strain at break (tensile)	50 mm/min	4.2 %
Strain at tensile strength	50 mm/min	3.8 %
Flexural modulus	2 mm/min	2.8 GPa
Flexural strength	2 mm/min	73.6 MPa
Flexural strain at strength	2 mm/min	3.3 %
Strain at break (flexural)	2 mm/min	3.3 %
Impact strength (Charpy, unnotched)	23 °C	10.4 kJ/m ²
TEST SPECIMENS Printer Creality Ender 3 Nozzle 0.4 mm Infill 20% Shells 2 Layer height 0.2 mm Nozzle temp. 230 °C Bed temp. 55 °C Print speed 50 mm/s		

PRINTING RECOMMENDATIONS

Printing temp.	220 °C	Bed temp.	50 °C
Chamber temp.	35 °C	Recommended speed	≤250 (60 walls) mm/s
Max printing speed	≤1000 mm/s	Retraction	0.8 mm

HANDLING, STORAGE & THERMAL

Max flow rate	74 mm ³ /s	Max-flow test printer	FLsun T1 Pro
Heat deflection temp.	55 °C	Vicat softening temp.	60 °C
Glass transition temp.	60 °C	Drying temp.	45 °C
Drying time	4 h	Enclosed printer	Not recommended
Multi-material compatibility	Compatible		

TIPS & TRICKS

- **Slower visible walls improve gloss**
Use lower outer-wall speed when shine matters most.
- **Keep temperature stable**
Silk gloss changes with temperature swings; tune once and avoid large jumps.
- **Defining the shine level**
For maximum silk shine, print outer walls at 60 mm/s. Inner walls and infill can print up to ≤ 250 mm/s.
- **Dry gently before printing**
Dry at 45 °C for 4 h and store sealed.
- **Recommended print speed**
Use 60 mm/s outer walls for maximum shine and ≤ 250 mm/s for inner walls and infill. Max Printing Speed is the tested ceiling.

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